

39. Cancelled.

40. Cancelled.

41. Cancelled.

42. Cancelled.

5 43. Allowed.

~~39~~ ~~44~~ (Once Amended) The interlocking ball and socket joint of claim 42 ~~43~~, further comprising:

a second coupling member partially formed of a resilient deformable material in a substantially globular shape having an unconstrained diameter and encompassing a mechanical core having a projection extending outside the unconstrained diameter; and

10 a second socket adapted to accept a mechanical attachment and having second substantially opposing concave surfaces shaped to substantially conform to the substantially spherical portion of the second coupling member; and

wherein:

the adjustable clamp is further disposed subsequently in a plurality of adjustment
15 relationships to the second opposing concave socket surfaces,

one adjustment of the clamp conforming the second opposing concave socket surfaces in a relatively rotational relationship with the second coupling member, wherein the second opposing concave socket surfaces partially encompass a second spherical volume having substantially the same diameter as the globular portions of the second coupling member, whereby
20 the second socket and the second coupling member are relatively rotatable, and

another adjustment of the clamp conforming the second opposing concave socket surfaces in an interlocking relationship with the second coupling member, wherein the second opposing concave socket surfaces partially encompass second opposing spherical segments of the second coupling member that are spaced apart a second distance that, combined with a height of
25 each of the second opposing spherical segments, is less than the unconstrained diameter of the globular portion of the second coupling member, whereby the second socket deforms the second coupling member and interlocks the second socket and the second coupling member in a second relative angular orientation.

45. The interlocking ball and socket joint of claim 44, wherein the disposition of the adjustable clamp in a plurality of adjustment relationships to the first and second opposing concave socket surfaces further comprises disposition of the adjustable clamp in a plurality of different adjustment relationships to the first and second opposing concave socket surfaces that apply differential clamping forces between the first and second opposing concave socket surfaces.

46. The interlocking ball and socket joint of claim 44, wherein one of the first and second opposing concave surfaces shaped to substantially conform to the globular portion.

47. Cancelled.

48. Cancelled.

10 49. Cancelled.

50. Allowed.

43
51. (Once Amended) The interlocking ball and socket joint of claim 4750, further comprising:
a second coupling member having a radially compressible material formed in a substantially spherical shape having a second uncompressed outer diameter and formed around a second relatively rigid core having a projection extending outside of the second unconstrained diameter;

15 a second socket adapted to accept a mechanical attachment and comprising two or more second substantially rigid socket members each having substantially smooth concave surfaces coextending with a portion of the second uncompressed outer diameter of the spherical portion of
20 the second coupling member; and wherein:

the adjustable clamp is further mechanically attached to the second socket members and subsequently positioning the second socket members in a plurality of opposing relationships to one another,

25 a third adjustment of the clamp positioning the second socket members in a opposing relationship on either side of the second coupling member and relatively rotatable thereto, and

a fourth adjustment of the clamp positioning the second socket members in a opposing relationship on either side of the second coupling member and compressing the radially compressible material thereof, whereby the second socket members substantially compress the second coupling member and interlock the second socket members with the second coupling
5 member in a relative angular orientation.

52. Cancelled.

53. Cancelled.

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10 56. Cancelled.

57. Cancelled.

44
58. (Once Amended) ~~The method of claim of claim 57, wherein forming an artifact within an interior surface of at least one of the two opposing socket surfaces further comprises~~
~~A method of forming a universally positionable device for fixing relative angular orientation~~

15 between a ball and a socket, the method comprising:

mechanically fixing a substantially globular structure of sturdy but compressible material around a first end of a rigid mechanical structure having first and second ends;

adapting the second end of the rigid mechanical structure to accept a mechanical attachment thereto; and

20 forming an indentation within the an interior surface of the at least one of two opposing socket surfaces and disposing the two opposing socket surfaces about the globular structure, the two opposing socket surfaces adapted for disposing in a first relatively rotational relationship thereto and a second angularly fixed relationship thereto, wherein the compressible material is compressed between the two opposing socket surfaces.

25 59. Allowed.

60. Cancelled.



Clean Copy Incorporating Changes to Claims

38. Cancelled.

39. Cancelled.

40. Cancelled.

5 41. Cancelled.

42. Cancelled.

44. (Once Amended) The interlocking ball and socket joint of claim 43, further comprising:
a second coupling member partially formed of a resilient deformable material in a
substantially globular shape having an unconstrained diameter and encompassing a mechanical
10 core having a projection extending outside the unconstrained diameter; and
a second socket adapted to accept a mechanical attachment and having second
substantially opposing concave surfaces shaped to substantially conform to the substantially
spherical portion of the second coupling member; and
wherein:

15 the adjustable clamp is further disposed subsequently in a plurality of adjustment
relationships to the second opposing concave socket surfaces,
one adjustment of the clamp conforming the second opposing concave socket
surfaces in a relatively rotational relationship with the second coupling member, wherein the
second opposing concave socket surfaces partially encompass a second spherical volume having
20 substantially the same diameter as the globular portions of the second coupling member, whereby
the second socket and the second coupling member are relatively rotatable, and
another adjustment of the clamp conforming the second opposing concave socket
surfaces in an interlocking relationship with the second coupling member, wherein the second
opposing concave socket surfaces partially encompass second opposing spherical segments of the
25 second coupling member that are spaced apart a second distance that, combined with a height of
each of the second opposing spherical segments, is less than the unconstrained diameter of the
globular portion of the second coupling member, whereby the second socket deforms the second
coupling member and interlocks the second socket and the second coupling member in a second
relative angular orientation.

47. Cancelled.

48. Cancelled.

49. Cancelled.

51. (Once Amended) The interlocking ball and socket joint of claim 50, further comprising:

5 a second coupling member having a radially compressible material formed in a substantially spherical shape having a second uncompressed outer diameter and formed around a second relatively rigid core having a projection extending outside of the second unconstrained diameter;

10 a second socket adapted to accept a mechanical attachment and comprising two or more second substantially rigid socket members each having substantially smooth concave surfaces coextending with a portion of the second uncompressed outer diameter of the spherical portion of the second coupling member; and wherein:

15 the adjustable clamp is further mechanically attached to the second socket members and subsequently positioning the second socket members in a plurality of opposing relationships to one another,

a third adjustment of the clamp positioning the second socket members in a opposing relationship on either side of the second coupling member and relatively rotatable thereto, and

20 a fourth adjustment of the clamp positioning the second socket members in a opposing relationship on either side of the second coupling member and compressing the radially compressible material thereof, whereby the second socket members substantially compress the second coupling member and interlock the second socket members with the second coupling member in a relative angular orientation.

52. Cancelled.

25 53. Cancelled.

54. Cancelled.

55. Cancelled.

56. Cancelled.

57. Cancelled.

58. (Once Amended) A method of forming a universally positionable device for fixing relative angular orientation between a ball and a socket, the method comprising:

mechanically fixing a substantially globular structure of sturdy but compressible material around a first end of a rigid mechanical structure having first and second ends;

5 adapting the second end of the rigid mechanical structure to accept a mechanical attachment thereto; and

forming an indentation within an interior surface of at least one of two opposing socket surfaces and disposing the two opposing socket surfaces about the globular structure, the two opposing socket surfaces adapted for disposing in a first relatively rotational relationship thereto and a second angularly fixed relationship thereto, wherein the compressible material is compressed between the two opposing socket surfaces.

10 60. Cancelled.

61. (Once Amended) An interlocking ball and socket joint comprising:

15 a coupling member having a radially compressible material formed in a substantially unbroken spherical shape having an uncompressed outer diameter and formed around a relatively rigid core having a projection extending outside of the unconstrained diameter;

a socket adapted to accept a mechanical attachment and comprising two or more substantially rigid socket members each having substantially smooth concave surfaces coextending with a portion of the uncompressed outer diameter of the spherical portion of the coupling member, one of the smooth concave surfaces having an indentation formed therein; and

20 an adjustable clamp mechanically attached to the socket members and subsequently positioning the socket members in a plurality of opposing relationships to one another,

one adjustment of the clamp positioning the socket members in a opposing relationship on either side of the coupling member and relatively rotatable thereto, and

25 another adjustment of the clamp positioning the socket members in a opposing relationship on either side of the coupling member and compressing the radially compressible material thereof, whereby the socket members substantially compress the coupling member and interlock the socket members with the coupling member in a relative angular orientation.

of expediting examination and allowance of the present patent application, rejected claims 38-42, 47-49, 52-57 and 60 are hereby cancelled. The Applicant intends to pursue the cancelled claims in a Continuation application claiming the benefit of the present application.

Claims 44 and 51 are amended hereby to depend from respective allowable base
5 claims 43 and 50. Claims 44 and 51 are now believed to be allowable. Claims 45 and 46
depending from now allowable claim 44 are also now believed to be allowable.

Allowable Subject Matter

The Examiner is thanked for notifying the Applicant that claims 58 and 61 contain
allowable subject matter. Claims 58 and 61 are rewritten in independent form, including the limitations
10 of the base claim and any intervening claims.

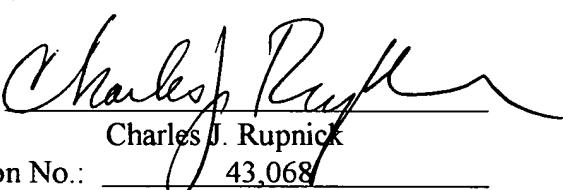
Claims 58 and 61 are now believed to be allowable.

The claims now being in form for allowance, reconsideration and allowance is
respectfully requested.

For the Examiner's convenience, an Attachment hereto shows the amended
15 claims having the changes thereto incorporated therein.

If the Examiner has questions or wishes to discuss any aspect of the case, the Examiner
is encouraged to contact the undersigned at the telephone number given below.

Respectfully submitted,

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